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Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 02426

Re: **Tennessee Gas Pipeline Company, L.L.C., Docket No. PF 14-22-000 Northeast Energy Direct Project; Submission of Massachusetts Attorney General Maura Healey's Study of New England Electric Reliability Options**

Dear Secretary Bose:

The Office of Massachusetts Attorney General Maura Healey (AGO) is pleased to submit our study of New England electric reliability options, *Power System Reliability in New England: Meeting Electric Resource Needs in an Era of Growing Dependence on Natural Gas*, prepared by Analysis Group, Inc. (the "Study"). The Study evaluates options to address regional electricity reliability in New England, including natural gas capacity needs, through 2030.

This submission is offered pursuant to the National Environmental Policy Act, as part of the pre-filing process for the Northeast Energy Direct interstate gas pipeline project ("NED Project"). In the AGO's detailed comments on the scope of the Environmental Impact Statement for the NED Project, we indicated that we would be filing the Study with the Federal Energy Regulatory Commission (FERC) upon the Study's completion. *See* Scoping Comments of Massachusetts Attorney General Maura Healey, PF 14-22-000 (Oct. 16, 2015) (hereafter, AGO Scoping Comments), at 8-9. The AGO further requests that this submission be included and considered as part of the full FERC administrative record for the NED Project's application for a certificate of public convenience and necessity.

The Study's findings fundamentally call into question any reliability-based need for the NED Project, as proposed by applicant Tennessee Gas Pipeline, L.L.C. (Tennessee Gas).[1]

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[1] *See* AGO Scoping Comments, Section I, at 5-11 ("FERC should undertake a robust assessment of the need for additional natural gas capacity as the starting point for the EIS").

We provide below a brief summary of the Study's conclusions and their relevance to the above-docketed proceeding:

First, the Study finds that, under status quo conditions and using very conservative assumptions, **the reliability of New England's power system can and will be maintained over time *without* new interstate natural gas pipeline capacity, including at the time of winter peak demand**. The Study utilizes a conservative reliability planning perspective—namely, with every judgment and assumption the Study errs on the side of overstating the need for electricity generation, and understating the level of resources available to meet that need. The Study models the need for gas-fired generation to meet the region's electrical load requirements in each year through 2030, and compares that to a forecast of gas that could actually be available for electricity generation. The Study finds that under existing market conditions, we can expect no electric sector reliability deficiency through 2030, and that no additional pipeline gas capacity is needed to meet electric reliability needs. This finding reflects the combination of declining winter peak demand and the success of new ISO-NE market initiatives that provide strong financial signals for resource developers and operators of existing assets to ensure unit reliability during periods of winter gas scarcity.

Second, the Study goes beyond conservative reliability planning assumptions and assesses a "stressed system" case in which New England becomes even more reliant on natural gas-fired power than anticipated, and experiences a short-term disruption in other fuels—causing the electric system to be more stressed than expected on very cold days. In the "stressed system" case, the Study finds a maximum reliability deficiency of roughly 2,400 MW by 2030, with deficiencies in no more than 26 hours over 9 winter days.

Third, the Study assesses "solution sets" to meet the reliability need identified in the "stressed system" case by comparing their respective ratepayer costs and effects on regional greenhouse gas (GHG) emissions. These approaches include market-driven solutions (including oil backup (dual-fuel) capability at natural gas power plants and firm contracts for liquefied natural gas (LNG) delivery to power plants), natural gas pipeline expansion, and renewable/distributed resource investments (including energy efficiency, demand response, and low carbon imports from neighboring areas with and without new transmission lines). The Study uses the market-oriented dual-fuel solution set as the baseline for assessment of other solution sets. Based on modeling of New England's electric prices and through 2030, the Study finds with respect to:

(1) Market-driven solutions:

a. electricity markets would likely meet any deficiency need through the addition of dual-fuel capability at existing facilities, and/or by contracting for LNG;

b. however, market-based solutions fail to offer outcomes consistent with the climate change programs and goals of the New England states and would not necessarily achieve the states' mass-based GHG emission goals under EPA's Clean Power Plan (CPP goals).

(2) Electric ratepayer investment in new interstate natural gas pipeline capacity:

a. the construction of additional gas capacity could address the identified stressed system deficiency, provided such capacity was fully reserved for delivery to electricity generators under coincident winter peak conditions for heating and electricity generation;
b. investment in new gas capacity would generate significant wholesale electricity price benefits but would also require up-front ratepayer commitments; and
c. investment in new interstate natural gas pipeline capacity fails to offer outcomes consistent with the climate change programs and goals of the New England states or with the states' CPP goals.

(3) Renewable/distributed investments:

a. additional investment in energy efficiency and demand response measures is the most cost-effective and clean option for meeting any future electric reliability need, fully addressing the stressed system reliability deficiency, delivering the most wholesale electricity price benefits, and significantly reducing GHG emissions;
b. firm imports of low-carbon resources from outside New England on existing transmission lines, when combined with energy efficiency and demand response measures, provide the greatest GHG emissions reductions of the reliability solutions studied;
c. firm imports of low-carbon resources from outside New England on new transmission lines could address future reliability needs and reduce GHG emissions, but would result in net costs to electric ratepayers; and
d. while these reliability solutions, which are sized and timed to meet the stressed system reliability deficiency, would meet the states' CPP goals, they fail to achieve state climate change goals, meaning that the states must take yet more aggressive actions to reduce GHG emissions.

Fourth, the Study examined the cost and GHG emission impacts of two large infrastructure projects: (1) new natural gas pipeline capacity that is larger than the stressed system reliability deficiency and installed earlier than needed; and (2) firm imports of distant low-carbon resources on new and existing transmission lines that are installed earlier than needed. These infrastructure

scenarios demonstrate cost, risk, electricity price, and GHG emission impacts that are similar in nature but larger in size than like infrastructure that is sized and timed to meet the reliability need. Notably, the oversized natural gas pipeline infrastructure scenario would deliver less customer savings than are achievable with investment in energy efficiency and demand response. The firm imports infrastructure scenario was the most expensive option analyzed in the Study, but it provides the deepest GHG emission reductions and would achieve the New England states' current climate goals.

The Study underscores the critical importance of FERC's own rigorous evaluation of the nature and extent of the regional need for new gas capacity as part of its review of the NED Project. *See* AGO Scoping Comments at 5-13. In particular, and as discussed in the AGO's detailed scoping comments, Tennessee Gas intends to finance most of the NED Project's capacity (up to 0.8 Bcf/day) with long-term contracts with electric utilities paid for by electric ratepayers to serve natural gas-fired electric generators. *See* AGO Scoping Comments at 7. In light of market conditions that will promote alternatives to new pipelines, the Study demonstrates that, under the status quo, there is *no* electric reliability deficiency that would justify electric ratepayer investment in the NED Project.[2]

Furthermore, the Study shows that electric ratepayer-funded gas pipeline investments like the proposed NED Project are more costly to ratepayers than comparable investments in cleaner alternatives, including energy efficiency, demand response, and firm low-carbon imports over existing transmission lines (when paired with energy efficiency). In this regard, the Study provides relevant data and analysis for FERC's use in analyzing the reasonable non-pipeline and non-gas alternatives to the NED Project. *See* AGO Scoping Comments at 15-16.

In fact, the Study finds that, unlike these alternatives, natural gas pipeline investments like the NED Project that seek to serve the power sector will *increase* regional GHG emissions relative to status quo market conditions. In light of this finding, FERC's NEPA-required analysis of the incremental GHG emissions in New England should determine that the NED Project, as proposed, cannot meet the New England states' climate goals or applicable federal CPP goals. *See* AGO Scoping Comments at 23-25.

The AGO requests that FERC fully consider the findings of the Study in the Environmental Impact Statement for the NED Project, including in the EIS's analysis of reasonable alternatives.

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[2] The Study does not seek to address gas customer needs. As discussed in the AGO's scoping comments, FERC should consider whether the gas capacity amounts under Tennessee Gas's precedent agreements with New England local gas distribution companies (LDCs)—the only transportation service commitments currently supporting the NED Project's development—are justified not only by the LDCs' needs but also in absence of reasonable alternatives. *See* AGO Scoping Comments at 9-10.

FERC also should take the findings of the Study into account as part of its overall review of the NED Project's application for a certificate of public convenience and necessity.

Attorney General Healey appreciates the Commission's willingness to consider the Study as part of its review of the NED Project and would also welcome the opportunity to discuss its findings with the Commissioners in other appropriate venues.

Respectfully submitted,

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